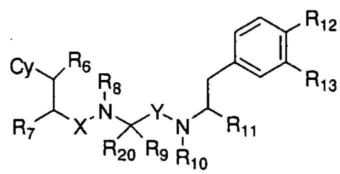
CLAIMS

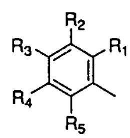
1. A compound of Formula (1):



(1)

wherein:

Cy is a group of Formula (2):



(2)

an optionally substituted heterocyclic ring, C_{3-7}cycloalkyl or phenyl;

R_1, R_2, R_3, R_4 and R_5 are hydrogen, halogen, hydroxy, amino, trifluoromethyl or nitrile and at least one of R_1, R_2, R_3, R_4 and R_5 is halogen, trifluoromethyl or nitrile;

R_6 is hydrogen, optionally substituted straight-chained or branched C_{1-3}alkyl, amino or hydroxy;

R_7 is hydrogen, optionally substituted straight-chained or branched C_{1-3}alkyl, optionally substituted amino or hydroxy;

R_8 is hydrogen, methyl or ethyl;

R_9 is optionally substituted straight-chained or branched C_{1-6}alkyl, optionally substituted straight-chained or branched C_{2-6}alkenyl, optionally substituted straight-chained or branched C_{2-6}alkynyl, C_{3-7}cycloalkyl or

optionally substituted phenyl;

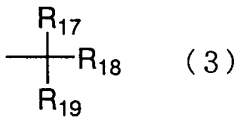
R_{20} is hydrogen or straight-chained or branched C_{1-3}alkyl or R_9 and R_{20} may together form C_{3-7}cycloalkyl;

R_{10} is hydrogen or straight-chained or branched C_{1-3}alkyl;

R_{11} is hydrogen, optionally substituted straight-chained or branched C_{1-3}alkyl, $-CO-N(R_{14})R_{15}$, carboxyl or an optionally substituted heterocyclic ring;

R_{12} is hydroxy or $-OR_{16}$;

R_{13} is hydrogen, straight-chained or branched C_{1-6}alkyl, straight-chained or branched C_{2-6}alkenyl, straight-chained or branched C_{2-6}alkynyl or a group of Formula (3):



(3)

R_{14} and R_{15}, which may be the same or different, are hydrogen, optionally substituted straight-chained or branched C_{1-4}alkyl, C_{3-7}cycloalkyl, straight-chained or branched C_{1-4}alkyloxy, straight-chained or branched C_{1-4}alkylsulfonyl or a heterocyclic ring, or R_{14} and R_{15}, as $-N(R_{14})R_{15}$, form optionally substituted 3- to 7-membered cyclic amine;

R_{16} is straight-chained C_{1-4}alkyl;

R_{17} is hydrogen or methyl;

R_{18} and R_{19} together form cycloalkyl or C_{3-7}cycloalkenyl;

X is carbonyl or methylene;

Y is carbonyl or methylene;

provided that

when Cy is 3-indolyl,

(i) R_{11} is an optionally substituted heterocyclic ring; or

(ii) R_6 is hydrogen, R_7 is amino, R_8 is methyl, R_9 is isopropyl, R_{20} is hydrogen, R_{10} is methyl, R_{11} is carbamoyl, R_{12} is hydroxy, R_{13} is tert-butyl, X is carbonyl and Y is carbonyl, and

when Cy is cyclohexyl or phenyl, R_{11} is an optionally substituted heterocyclic ring;

or a hydrate or pharmaceutically acceptable salt thereof.

2. The compound according to claim 1, wherein Cy in Formula (1) is a group of Formula (2); or a hydrate or pharmaceutically acceptable salt thereof.

3. The compound according to claim 1, wherein Cy in Formula (1) is a group of Formula (2) in which at least one of R_1, R_2, R_3, R_4 and R_5 is halogen and the others are hydrogen or hydroxy; or a hydrate or pharmaceutically acceptable salt thereof.

4. The compound according to claim 1, wherein Cy in Formula (1) is a group of Formula (2) in which R_3 is halogen or R_2 and R_3 are the same kind of halogen; or a hydrate or pharmaceutically acceptable salt thereof.

5. The compound according to claim 1, wherein Cy in Formula (1) is a group of Formula (2) in which R_3 is halogen and R_1, R_2, R_4 and R_5 are hydrogen, or

R_2 and R_3 are the same kind of halogen and R_1, R_4 and R_5 are hydrogen;

or a hydrate or pharmaceutically acceptable salt thereof.

6. The compound according to claim 1,

wherein Cy in Formula (1) is a group of Formula (2) in which at least one of R_1, R_2, R_3, R_4 and R_5 is trifluoromethyl and the others are hydrogen, halogen or hydroxy;

or a hydrate or pharmaceutically acceptable salt thereof.

7. The compound according to claim 1,

wherein Cy in Formula (1) is a group of Formula (2) in which at least one of R_1, R_2, R_3, R_4 and R_5 is nitrile and the others are hydrogen, halogen or hydroxy;

or a hydrate or pharmaceutically acceptable salt thereof.

8. The compound according to claim 1,

wherein Cy in Formula (1) is a group of Formula (2) in which R_3 is trifluoromethyl;

or a hydrate or pharmaceutically acceptable salt thereof.

9. The compound according to claim 1,

wherein Cy in Formula (1) is a group of Formula (2) in which R_3 is nitrile;

or a hydrate or pharmaceutically acceptable salt thereof.

10. The compound according to claim 1,

wherein Cy in Formula (1) is an optionally substituted heterocyclic ring provided that when Cy is 3-indolyl,

(i) R_{11} is an optionally substituted heterocyclic ring; or

(ii) R_6 is hydrogen, R_7 is amino, R_8 is methyl, R_9 is

isopropyl, R_{20} is hydrogen, R_{10} is methyl, R_{11} is carbamoyl, R_{12} is hydroxy, R_{13} is tert-butyl, X is carbonyl and Y is carbonyl;

or a hydrate or pharmaceutically acceptable salt thereof.

11. The compound according to claim 1,

wherein in Formula (1), Cy is C_{3-7}cycloalkyl provided that when Cy is cyclohexyl, R_{11} is an optionally substituted heterocyclic ring;

or a hydrate or pharmaceutically acceptable salt thereof.

12. The compound according to claim 1,

wherein in Formula (1), Cy is phenyl and R_{11} is an optionally substituted heterocyclic ring;

or a hydrate or pharmaceutically acceptable salt thereof.

13. The compound according to any one of claims 1-12,

wherein R_6 in Formula (1) is hydrogen or methyl;

or a hydrate or pharmaceutically acceptable salt thereof.

14. The compound according to any one of claims 1-13,

wherein R_7 in Formula (1) is hydrogen or optionally substituted amino;

or a hydrate or pharmaceutically acceptable salt thereof.

15. The compound according to any one of claims 1-14,

wherein R_8 in Formula (1) is hydrogen or methyl;

or a hydrate or pharmaceutically acceptable salt thereof.

16. The compound according to any one of claims 1-15,

wherein R_9 in Formula (1) is methyl, isopropyl, isobutyl, sec-butyl, tert-butyl, 3-pentyl, neopentyl, cyclohexyl, phenyl, benzyl, para-hydroxybenzyl, cyclohexylmethyl or para-fluorobenzyl;

or a hydrate or pharmaceutically acceptable salt thereof.

17. The compound according to any one of claims 1-16, wherein R_{20} in Formula (1) is hydrogen or methyl; or a hydrate or pharmaceutically acceptable salt thereof.

18. The compound according to any one of claims 1-17, wherein R_{10} in Formula (1) is hydrogen or methyl; or a hydrate or pharmaceutically acceptable salt thereof.

19. The compound according to any one of claims 1-18, wherein R_{11} in Formula (1) is methyl, hydroxymethyl, carbamoylmethyl, methanesulfonylmethyl, ureidemethyl, sulfamoylaminomethyl, methanesulfonylaminomethyl, carbamoyl, ethylcarbamoyl, n-propylcarbamoyl, isopropylcarbamoyl, cyclopropylcarbamoyl, tertbutylcarbamoyl, 2-pyridylcarbamoyl, methoxycarbamoyl, 2-thiazolyl, 1,3,4-oxadiazol-2-yl, 1,2,4-oxadiazol-5-yl, 1,3,4-triazol-2-yl, 6-methyl-4-pyrimidinon-2-yl, methylcarbamoyl, methanesulfonylmethylcarbamoyl, methoxymethylcarbamoyl, 1-morpholinylcarbonyl, 4-carboxymethyl-1-piperazinecarbonyl, 4-ethoxycarbonylmethyl-1-piperazinecarbonyl or 4-methylsulfonyl-1-piperazinecarbonyl; or a hydrate or pharmaceutically acceptable salt thereof.

20. The compound according to any one of claims 1-19, wherein R_{12} in Formula (1) is hydroxy; or a hydrate or pharmaceutically acceptable salt thereof.

21. The compound according to any one of claims 1-20, wherein R_{13} in Formula (1) is isopropyl, tert-butyl (tBu), 1,1-dimethylpropyl or 1,1-dimethyl-2-propenyl;

~~or a hydrate or pharmaceutically acceptable salt thereof.~~

22. The compound according to claim 1,

wherein in Formula (1)

Cy is a group of Formula (2) in which at least one of R_1, R_2, R_3, R_4 and R_5 is halogen and the others are hydrogen or hydroxy;

R_6 is hydrogen or methyl;

R_7 is hydrogen or optionally substituted amino;

R_8 is hydrogen or methyl;

R_9 is methyl, isopropyl, isobutyl, sec-butyl, tert-butyl, 3-pentyl, neopentyl, cyclohexyl, phenyl, benzyl, para-hydroxybenzyl, para-fluorobenzyl or cyclohexylmethyl;

R_{20} is hydrogen;

R_{10} is hydrogen or methyl;

R_{11} is methyl, hydroxymethyl, carbamoylmethyl, methanesulfonylmethyl, ureidemethyl, sulfamoylaminomethyl, methanesulfonylaminomethyl, carbamoyl, methylcarbamoyl, ethylcarbamoyl, n-propylcarbamoyl, isopropylcarbamoyl, cyclopropylcarbamoyl, tert-butylcarbamoyl, 2-pyridylcarbamoyl, methanesulfonylmethylcarbamoyl, methoxymethylcarbamoyl, methoxycarbamoyl, 1-morpholinylcarbonyl, 4-carboxymethyl-1-piperazinecarbonyl, 4-ethoxycarbonylmethyl-1-piperazinecarbonyl, 4-methylsulfonyl-1-piperazinecarbonyl, 2-thiazolyl, 1,3,4-oxadiazol-2-yl, 1,2,4-oxadiazol-5-yl, 1,3,4-triazol-2-yl or 6-methyl-4-pyrimidinon-2-yl;

R_{12} is hydroxy;

R_{13} is isopropyl, tert-butyl (tBu), 1,1-dimethylpropyl or

1,1-dimethyl-2-propenyl;

or a hydrate or pharmaceutically acceptable salt thereof.

23. The compound according to claim 1 which is selected from the group of compounds consisting of Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Phe(4-Cl)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Phe(3,4-F_2)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Phe(3-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHOMe, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-tertbutyl-4-hydroxyphenyl)-1-(2-pyridylcarbamoyl)ethylamide, N-(2-(2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methyl-butyrylamino)-3-(3-tBu-4-hydroxyphenyl)propyl)urea, N-(2-(2-(2-amino-3-(4-fluorophenylpropanoyl-N-methylamino)-3-methyl)butyrylamino)-3-(3-tertbutyl-4-hydroxyphenyl)propyl)sulfamide, N-[2-(3-tertbutyl-4-hydroxyphenyl)-1-(methanesulfonylaminomethyl)ethyl]-2-[N-(4-fluorophenylalanyloyl)methylamino]-3-methylbutanamide, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-t-butyl-4-hydroxyphenyl)-1-carbamidemethylethylamide, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-t-butyl-4-hydroxyphenyl)-1-methanesulfonylmethylethylamide, 2-(2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methyl-butyrylamino)-3-(3-tBu-4-hydroxyphenyl)propanol, 2-(1-(2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methyl-butyrylamino)-2-(3-tertbutyl-4-

hydroxyphenyl)ethyl)-6-methyl-4-pyrimidinone, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-t-butyl-4-hydroxyphenyl)-1-(1,3,4-oxadiazol-2-yl)ethylamide, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-t-butyl-4-hydroxyphenyl)-1-(1,2,4-oxadiazol-5-yl)ethylamide, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-tertbutyl-4-hydroxyphenyl)-1-(thiazol-2-yl)ethylamide, 2-((2-amino-3-(4-fluorophenyl)propionyl)-N-methylamino)-3-methylbutyric acid 2-(3-t-butyl-4-hydroxyphenyl)-1-(1,3,4-triazol-2-yl)ethylamide, Tyr(2-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Tyr(3-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NH_2, N-Me-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NH_2, N-Et-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NH_2, Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHMe, N-Me-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHMe, N-Et-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHMe, N-Me-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, N-Et-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NH_2, Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHMe, N-Me-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHMe, N-Et-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHMe, Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NH_2, N-Me-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NH_2, N-Et-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NH_2, Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NHMe, N-Me-Phe(4-F)-N-Me-Val- N-Et-Tyr(3-tBu)-NHMe, N-Et-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NHMe, Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHtBu, Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-$NHCH_2SO_2CH_3$, Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHEt, N-Me-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHEt, N-Et-

Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHEt, Phe(4-F)-N-Me-Val-Tyr(3-tBu)-$NHCH_2OH$, N-Me-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-$NHCH_2OH$, N-Et-Phe(4-F)-N-Me-Val-Tyr(3-tBu)-$NHCH_2OH$, Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHEt, N-Me-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHEt, N-Et-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)- NHEt, Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-$NHCH_2OH$, N-Me-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-$NHCH_2OH$, N-Et-Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-$NHCH_2OH$, Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NHEt, N-Me-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NHEt, N-Et-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NHEt, Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-$NHCH_2OH$, N-Me-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-$NHCH_2OH$, N-Et-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-$NHCH_2OH$, Phe(4-F)-N-Me-Val-N-Me-Tyr(3-tBu)-NHcPr, and Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHnPr Phe(4-F)-N-Me-Val-Tyr(3-tBu)-NHiPr;

or a hydrate or pharmaceutically acceptable salt thereof.

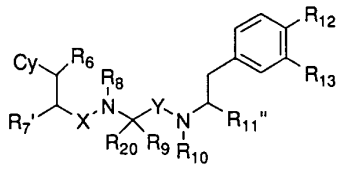
24. A medicine containing the compound according to any one of claims 1-23 as an active ingredient

25. A motilin receptor antagonist containing the compound according to any one of claims 1-23.

26. A gastrointestinal motility suppressor agent containing the compound according to any one of claims 1-23 as an active ingredient

27. A therapeutic of hypermotilinemia containing the compound according to any one of claims 1-23 as an active ingredient.

28. A compound of Formula (4):



(4)

wherein

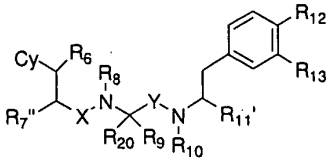
Cy, R_6, R_8, R_9, R_{20}, R_{10}, R_{12}, R_{13}, X and Y are as defined in claim 1;

R_7' is hydrogen, straight-chained or branched C_{1-3}alkyl optionally having at least one protected substituent, amino optionally having at least one protected substituent or protected hydroxy; and

R_{11}" is hydrogen, optionally substituted straight-chained or branched C_{1-3}alkyl, -CO-N(R_{14})R_{15}, wherein R_{14} and R_{15} are as defined in claim 1, carboxyl, straight-chained or branched C_{1-3}alkyl having a protected amino or an optionally substituted heterocyclic ring;

or a hydrate or pharmaceutically acceptable salt thereof.

29. A compound of Formula (5):



(5)

wherein:

Cy, R_6, R_8, R_9, R_{20}, R_{10}, R_{12}, R_{13}, X and Y are as defined in claim 1;

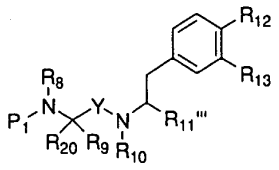
R_7" is hydrogen, straight-chained or branched C_{1-3}alkyl optionally having at least one optionally protected substituent, amino optionally having at least one optionally protected substituent or optionally

protected hydroxy; and

R_{11}' is hydrogen, straight-chained or branched C_{1-3}alkyl optionally having at least one protected substituent, $-CO-N(R_{14})R_{15}$ wherein R_{14} and R_{15} are as defined in claim 1, carboxyl or an optionally substituted heterocyclic ring;

or a hydrate or pharmaceutically acceptable salt thereof.

30. A compound of Formula (6):



(6)

wherein:

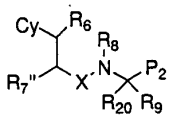
R_8, R_9, R_{20}, R_{10}, R_{12}, R_{13} and Y are as defined in claim 1;

P_1 is hydrogen or a protecting group of amine; and

R_{11}''' is hydrogen, optionally substituted straight-chained or branched C_{1-3}alkyl, $-CO-N(R_{14})R_{15}$ wherein R_{14} and R_{15} are as defined in claim 1, carboxyl, straight-chained or branched C_{1-3}alkyl having protected amino or an optionally substituted heterocyclic ring;

or a hydrate or pharmaceutically acceptable salt thereof.

31. A compound of Formula (7):



(7)

wherein:

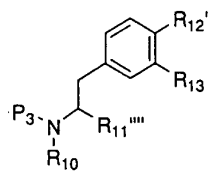
Cy, R_6, R_8, R_9, R_{20} and X are as defined in claim 1;

R_7" is hydrogen, straight-chained or branched C_{1-3}alkyl optionally having at least one optionally protected substituent, amino optionally having at least one optionally protected substituent or optionally protected hydroxy; and

P_2 is optionally protected carboxyl, formyl or methyl which has a leaving group;

or a hydrate or pharmaceutically acceptable salt thereof.

32. A compound of Formula (8):



(8)

wherein:

R_{10} and R_{13} are as defined in claim 1;

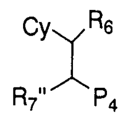
P_3 is hydrogen or a protecting group of amine;

R_{11}'''' is hydrogen, optionally substituted straight-chained or branched C_{1-3}alkyl, -CO-N(R_{14})R_{15} wherein R_{14} and R_{15} are as defined in claim 1, carboxyl, straight-chained or branched C_{1-3}alkyl having protected amino or an optionally substituted heterocyclic ring; and

R_{12}' is hydroxy or -OR_{16} wherein R_{16} is as defined in claim 1;

or a hydrate or pharmaceutically acceptable salt thereof.

33. A compound of Formula (9):



(9)

wherein:

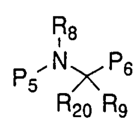
Cy and R_6 are as defined in claim 1;

R_7" is hydrogen, straight-chained or branched C_{1-3}alkyl optionally having at least one optionally protected substituent, amino optionally having at least one optionally protected substituent or optionally protected hydroxy; and

P_4 is optionally protected carboxyl, formyl or methyl which has a leaving group;

or a hydrate or pharmaceutically acceptable salt thereof.

34. A compound of Formula (10):



(10)

wherein:

R_8, R_9 and R_{20} are as defined in claim 1;

P_5 is hydrogen or a protecting group of amine; and

P_6 is optionally protected carboxyl, formyl or methyl which has a leaving group;

or a hydrate or pharmaceutically acceptable salt thereof.